

AMENDMENTS TO THE CLAIMS

1-3. (Cancelled)

4. (Original): A method comprising:

(i) providing a sample;

(ii) forming a mixture by adding the sample to a solution containing at least one series of nucleotide sequences having a forward primer, a reverse primer and a hybridization probe selected from the group consisting of SEQ ID NOs:1, 2, 3, 5, 6, 7, 9, 10, 11; 13, 14, 15;17, 18, 19; 21, 22, 23; under conditions suitable for isolating genomic DNA for amplification using PCR and under conditions suitable for hybridization with said at least one series of nucleotide sequences; and

(iii) subjecting the mixture to PCR.

5. (Original): The method of Claim 4 wherein said PCR comprises standard PCR.

6. (Original): The method of Claim 5, wherein said PCR comprises fluorogenic 5' nuclease PCR assay.

7. (Original): A method comprising:

(i) providing a sample;

(ii) forming a mixture by adding the sample to a solution containing at least one series of nucleotide sequences having a forward primer, a reverse primer and a hybridization probe selected from the group consisting of SEQ ID NOs:1, 2, 3, 5, 6, 7, 9, 10, 11; 13, 14, 15;17, 18, 19; 21, 22, 23; under conditions suitable for isolating genomic DNA for amplification using PCR and under conditions suitable for hybridization with said at least one series of nucleotide sequences; and

(iii) detecting the presence of at least one Amplicon sequence by fluoregenic 5' nuclease PCR assay, wherein the presence of said one Amplicon sequence indicates the existence existence of Brucella in the sample.

8. (CURRENTLY AMENDED) A composition comprising a first isolated polynucleotide and a second isolated polynucleotide, wherein the first isolated polynucleotide

~~comprises~~ consists of SEQ ID NO: 4 or a full-length complement thereof and the second polynucleotide ~~comprises~~ consists of SEQ ID NO: 8 or a full-length complement thereof.

9. **(CURRENTLY AMENDED)** The composition of claim 8, comprising at least one further isolated polynucleotide ~~comprising~~ consisting of a nucleic acid sequence selected from the group consisting of SEQ ID NOS: 12, 16, 20, and 24 or a full-length complement thereof.

10. **(CURRENTLY AMENDED)** The composition of claim 9, comprising six isolated polynucleotides each ~~comprising~~ consisting of one of SEQ ID NOS: 4, 8, 12, 16, 20, and 24 or full-length complements thereof.

11. **(Previously presented)** A set of oligonucleotides comprising (a) a polynucleotide fragment of each of the isolated polynucleotides of the composition of claim 8, wherein said fragments are 12 to 50 nucleotides in length, or (b) full-length complements of (a).

12. **(Previously presented)** The set of oligonucleotides of claim 11, wherein said set consists of forward primers and reverse primers and hybridization probes.

13. **(CURRENTLY AMENDED)** The set of oligonucleotides of claim 11, wherein each oligonucleotide ~~comprises~~ consists of one of SEQ ID NOS: 1, 2, 3, 5, 6, and 7.

14. **(Previously presented)** A set of oligonucleotides comprising (a) a polynucleotide fragment of each of the isolated polynucleotides of the composition of claim 10, wherein said fragments are 12 to 50 nucleotides in length, or (b) full-length complements of (a).

15. **(CURRENTLY AMENDED)** The set of oligonucleotides of claim 14, wherein each oligonucleotide ~~comprises~~ consists of one of SEQ ID NOS: 1, 2, 3, 5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 21, 22, and 23.

16. **(Previously presented)** The set of oligonucleotides of claim 11, wherein said fragments are 19 to 32 nucleotides in length.

17. **(Previously presented)** The set of oligonucleotides of claim 14, wherein said fragments are 19 to 32 nucleotides in length.